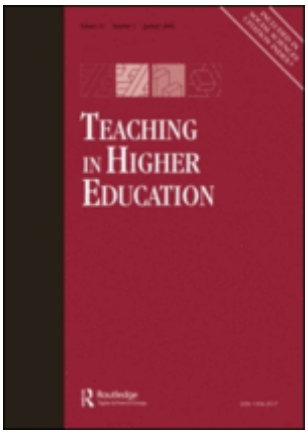
Rethinking the role of the academy: cognitive authority in the age of post-truth



Rethinking the role of the academy: cognitive authority in the age of post-truth

Journal:	*Teaching in Higher Education*
Manuscript ID	CTHE-2018-0244.R2
Manuscript Type:	Original
Keywords:	cognitive authority, post-truth, educational technology, public sphere

Rethinking the role of the academy: cognitive authority in the age of post-truth

Robert Farrow[1]

Rolin Moe[2]

Abstract: The concept of 'post-truth' is here explored within the context of education and educational technology. Contemporary political discourse is often characterised by a polarisation of political belief and scepticism about scientific and expert authority has become commonplace. We explore tensions between democratic and technocratic impulses in describing changes that are taking place in the way that authority typically operates in higher education. We analyse changing notions of academic authority to understand some of the implications for the practice of teaching, learning and administration. We argue that technocratic, administrative authority increasingly supplants cognitive authority and subject expertise. One result of increased emphasis on performative/administrative authority is the nature of authority both within the academy and the wider public sphere is changed. We examine the implications for pedagogy, curriculum and academic practice, suggesting that performative approaches to criticality, openness, truth and transparency offer potential routes to new constellations of cognitive authority.

1. Introduction: Post-truth, politics and technology

Do we value the concept of truth highly enough? The concept of 'post-truth' has its origins in post-structuralist discourse analyses (e.g. Foucault, 1981; Derrida, 1976) that emphasize the intimate connection between power and knowledge as well as Nietzsche's perspectivism and relativism about 'truth'. According to Constructivist accounts, all knowledge production (and hence truth) exists as a product of human activity and cognition which has no existence separate from human activity. This does not preclude the existence of experts nor the category of truth, but does problematise the notion of truth as it has operated in the history of philosophy and scientific inquiry. Kuhn's (1970) influential theory of paradigm change in science has also helped to popularise the idea that what is accepted as 'true' scientific knowledge is ultimately contingent and relative to a particular set of assumptions. Discourse analysis grew out of a need to have a more critical and reflexive account of social science. In recent years, thinkers such as Barad (2007) have extended this reflexivity into the physical sciences.

The 1990s were the origin point for a lot of contemporary attitudes towards truth and 'post-truth'. The rise of technocratic management; corporate branding; spin doctors; political triangulation and digital manipulation of images and video are reflective of a general tendency to see truth as a function of creativity and influence rather than as a feature of objective reality. An exhaustive account of 'post-truth' would take us beyond the remit of the

[1] Institute of Educational Technology, Learning and Teaching Innovation, The Open University (UK) rob.farrow@open.ac.uk
[2] Institute for Academic Innovation, Seattle Pacific University (USA) rolin@spu.edu

present paper, but Angermuller (2018) offers a useful summary of what is at stake in the debate:

> "According to critics, discourse theorists have gone too far in questioning reality since the advent of mass media society (e.g., Flyverbom and Reinecke, 2017). Thus, observers from within Discourse Studies, as well as from outside have denounced French discourse theories as 'postmodernist' (Habermas, 1993; Eagleton, 1996), even as a threat to Western democracy (Ferry and Renaut, 1988). Thus, for these critics, 'postmodernism' supports the idea that anything goes in moral affairs, that truth is nothing but an expression of power relationships and that an idea is true because people want it to be true. And they blame postmodernists for discrediting the idea of scientific truth." Angermuller (2018)

In *The Post-Truth Era: Dishonesty and Deception in Contemporary Life*, the author Ralph Keyes (2004) first raised the claim that contemporary political life is characterised by a state of 'post-truth'; that voters have become inured to rational argument, preferring emotional appeal; that political discourse is simply a matter of whose talking points are shouted the loudest; that expertise is simply an expression of the interests of a particular (and often dominant) social group; and there are no longer 'facts' and merely interpretations

In recent years there has been a surge in forms of political organisation that explicitly reject expert knowledge and embrace a generalised scepticism with respect to progressive issues. Pinpointing a turning point is difficult; but clear contemporary examples include the anti-vaccination movement; the denial of climate change science; flat-earthers; criticism of political correctness; belief in the 'deep state'; and so on. Brexit and the Trump presidency can be seen as the realization of post-truth as daily operation, the use of disproven or never-existing content as a foundation of real-world political and economic decisions (Peters, 2017).

Technology has played a fundamental role in the post-truth phenomenon. The Internet facilitated a process by which like-minded individuals could find each other, communicate and organise. Social media improved this affordance dramatically, with platformisation enabling mass communication across national borders with little or no technical expertise. This has made it easier to have erroneous beliefs reinforced by social recognition. Moe (2017) argues that the educational and political institutions positioned to identify and disperse knowledge have acted less as arbiter and more as marketer, allowing technology to catalyze the post-truth movement. Morozov (2017) goes a step further, noting that the knowledge economy is designed to promote consumption over accuracy; the technological affordance of measuring success by page views is evidence that the problem is not 'fake news' but rather an ecosystem of content-consumption-as-knowledge-development.

This paper analyses this transactional approach to teaching and learning and the implications not only for the academy but on societal expectations of knowledge and wisdom in a market-based ecosystem. We begin by describing the erosion of societal superstructures as authorities, which results in a winnowing of recognized subject expertise. We argue that the gap created by this phenomenon has been filled by market-based options bound up in technology products and ideologies, explored here as a particular "EdTech" ideology. Our analysis indicates a need for new forms of trust and cognitive authority appropriate to our contemporary circumstances. We propose indicate a number of performative strategies to build trust, such as curriculum reform; considering the balance between the civic and market

functions of higher education; building cultures that support justified cognitive authority; building stronger links to wider society through lifelong learning and outreach; and working with greater transparency and openness in operational processes.

2. Populism vs expert authority: The subordination of truth

The possible subordination of truth to political objectives has long been recognized in philosophy. A problematic tension between populist impulses and the subject knowledge of the expert was first identified by Plato. A noted traditional critique of the value of democratic knowledge is found in the *Republic* (Plato, 1937:543a-569c) where Socrates argues that the best form of government was to be found in the expert knowledge of the 'Philosopher-King' who reluctantly exercises their superior judgement for the collective good. Speaking (as usual) through the character of Socrates in the dialogue where several interlocutors challenge each other on the nature of justice in collective life, Plato considers several alternative forms of political organisation. Democracy, suggests Socrates, is the inevitable result of society organised for the benefit of an an aristocracy which leads to massive inequality. Plato believed that democracies are fundamentally anarchic and this results in a lack of unity and coherence. This in turn creates resentments which can be manipulated by a demagogue, leading to a new form of tyranny. Socrates goes on to contrast this vision with that of a benevolent dictatorship of a 'Philosopher-King' who, it is proposed, represents the optimum combination of strong executive authority and the exercise of good governance - "those whom we now call our kings and rulers take to the pursuit of philosophy seriously and adequately, and there is a conjunction of these two things, political power and philosophic intelligence" (Plato, 1937:473d).

Thus, the Platonic 'Philosopher-King' derives their authority not from democratic legitimacy but solely on the basis of expert judgement and technical knowledge. Kallipolis (Καλλίπολις) - the hypothetical, utopian city state ruled in this way - is highly technocratic, with a strict division of labour into three basic types: industrial & agricultural labourers; administration, government & defence; and leadership. What distinguishes the technocratic ruling class is that they have taken the time to develop their love of wisdom through education and training. They are experts in reasoning who exercise good judgement in the interests of the whole.

A similar distinction is made in another Platonic dialogue: the *Gorgias*, a dialogue about rhetoric and persuasion. Gorgias, a character is the dialogue, is a famed rhetorician and sophist. Socrates expresses his contempt for such arts of persuasion on the grounds that they are directed towards pleasure and gratification rather than truth and well-being (Plato, 1952:463). This time the analogy is drawn between the physician and the cook. Socrates argues that medicine is characterised by an interest in the health of the individual, while cooking is focused primarily on the pleasures experienced by those that dine on the food. Similarly, gymnastics aims to improve the body while cosmetics are used to improve only appearance (*Ibid*. 464c–465d). For Plato/Socrates the true goal of dialectics should be truth and the role of the inquirer is to love truth, not the effect that any rhetoric has on a listener.

Gorgias comes to accept that his own rhetorical art is ultimately focused on the production and manipulation of opinion (*doxa*) rather than genuine knowledge (*epistēmē*). In a commentary on *Gorgias*, McComiskey (1992:86) notes that an alternative response is available to Gorgias: he can simply deny the possibility of *epistēmē* outright and claim that

all knowledge is a matter of doxa: "for Gorgias the sophist, all 'knowledge' is opinion. There can be no rational or irrational arguments because all human beliefs and communicative situations are relative". We can see clearly in this response the embryonic form of a post-truth paradigm where truth is made subordinate to some other (typically political) objective.

Plato's defence of the role of the expert has been highly influential. Plato's critique endures because it captures well the tension and incommensurability between democratic or populist impulse and expert forms of knowledge production and transmission. Simply put, expertise constitutes a form of authority, but one which is not necessarily recognised or understood by non-experts: hence the technocratic approach endorsed by Plato's Socrates. In what follows we term this phenomenon of superior knowledge as 'cognitive authority' following Wilson (1983; 1991) and Rieh (2005) and employ this concept as a lens on expertise in educational practice.

3. Cognitive and administrative authority in higher education

Expertise and authority are core concepts in formal educational systems: didactic approaches to pedagogy often amount to little more than an exercise in the recognition of authority. Academics justify at least some of their activities through an implicit claim to cognitive authority: they know more than the general population about a particular domain. Wilson (1983) distinguishes first hand (experience) and second hand (reported/learned) cognitive authority. Because individual experience and knowledge are limited by the ability of a single human to understand the world and amass knowledge, we typically rely on the cognitive authority of others for most of our knowledge. This is especially true in the case of formal instruction, but it also held to be a general epistemic feature of human knowledge. Second hand reporting not only provides most of our "knowledge" of the world: it also shapes and structures the ways in which our first hand experiences are interpreted and understood within wider frameworks of truth and validity.

Wilson (1991) describes the following features of authentic cognitive authority:

- *Reliability*: second person testimony is considered reliable when the witness is expert
- *Specificity*: a knowledge domain may be broad or narrow, but it must be discrete; expertise in one area does not connote expertise in another
- *Normativity*: expert testimony is not just trusted by a particular individual but also considered to be trustworthy and should be believed unless there is reason not to
- *Openness to challenge*: it is possible to question a claim to cognitive authority on sceptical grounds or a competing knowledge claim

Cognitive authority is thus supported by social recognition: one can be recognised as an expert by some but challenged by others. In this sense, cognitive authority is structurally contingent but in practice those who are recognised as domain experts have had their authority established through extensive processes of examination and peer review. There is a hierarchical and dynamic element to this in that there are degrees of expertise. Some experts are recognised as having superior knowledge to others, and who is recognised as an expert can change over time. However, pedagogically speaking the educator is almost always in the position of cognitive authority with respect to the learners they support. Wilson further distinguishes two types of authority: cognitive authority and performative/administrative authority. These are characterised by different forms of power relation and consequent affordances.

> Cognitive authorities are authorities on something-e.g., insects or Buddhist logic. Administrative or performatory authorities are not authorities on anything; rather, they are authorized to do or command or forbid something, as the judge, "by virtue of the authority vested in me," is able to perform a legal marriage ceremony. (Wilson, 1991:259-260)

Rieh (2005) similarly argues that cognitive authority is separate from administrative and organisational forms of power. Traditionally this is how higher education institutions were organised; the production of authority through knowledge was joined by the practice of authority through community and fellowship, shared governance and collective action related to knowledge diffusion. However, within academia cognitive authority is often made subordinate to institutional (performative) authority as decisions that would traditionally be taken by scholars and experts are deferred to technocrats, managers and chief executives.

On the technocratic side, Smyth (2017) proposes three categories of reform in higher education: commodification, marketisation and managerialism. The expansion of higher education since the 1960s is bound up with advances in education and communication technologies that have both expanded provision to new audiences and also changed the nature of pedagogical relationships. Ball (1995; 2011) writes that in the 1960s the sociology of education was dominated by a focus on social class and the role of formal education in effecting progressive social change. By the 1970s this had become tempered with a cynicism about the way that existing power relations were being perpetuated by educators. This in turn gave way to a suspicion of the role of liberal expertise in educational policy-making, and by the 1980s class analysis had been largely displaced by identity politics as the locus of progressive analytical perspectives in education research. Ball argues that, by the 1990s, many of these areas had been wholly integrated into a wider project of educational reform that took its main inspiration from management theories which "define human beings as subjects to be managed" (Ball, 1995).

4. Authority and knowledge in neoliberal higher education

The process of binding academic institutions to corporate methodologies has come alongside a shift in the purpose of institutional existence, away from a public good of knowledge diffusion and toward a series of commodities to be deployed in the purposes of profit generation. The historical research on this topic has addressed this movement as a shift to academic capitalism (Slaughter & Rhoades, 2004), defined as an educational paradigm shift away from learners engaged with curriculum to educational consumers. Much of the writing on academic capitalism engages with the concept of neoliberalism, a geopolitical movement towards free-market capitalism most commonly associated with the policies of 1980s Western democracies such as Margaret Thatcher's United Kingdom and Ronald Reagan's United States. In modern discourses, neoliberalism is used primarily as an evocative call; however, its academic context is as foundational state of being for educational institutions (Seal, 2018). Whereas academic capitalism signified a perspective of learners as customers, neoliberalism identifies a present state of higher education designed to perpetuate academia as a space of consumption before knowledge.

Neoliberal higher education cannot be measured in terms of Marx's base and superstructure because the education superstructure functions based on the movements of the base. The

'neoliberal' academy is therefore a space focused on commodification and marketization of the education service. This is evident in the increased use of managerialism as a guiding principle for the division of labour and operations where the academy was traditionally a community of shared governance and democratic procedure. Elements such as return on investment and maximizing efficiency lead to the erosion and devaluation of education's stature in political economy and discourse.

The impact of neoliberalism in higher education is evident in the debate over what constitutes knowledge. From the perspective of the educator or expert, knowledge is something which must be constructed through shared interaction and discourse (Vygotsky, 1983), but within the neoliberal academy knowledge exists as content and can be imported at lower cost from already established vendors (Morrow, 2005). The quantifiability of technology-enhanced imported contents lend themselves to the measurement apparatuses of educational institutions while artifacts rendered through knowledge construction come at higher labor cost and no standardized metrics for measurement, meaning the demands of accreditation position the science of learning as counter to its higher education practice (Newfield, 2016).

Efforts at reform and institutional change are therefore most often perpetuations of the neoliberal university, addressed as innovations and revolutions but in truth reinforcing class systems and labor productions (de Sousa Santos, 2005). Moreover, the political acceptance and agreement on reshaping the academy into an economic engine has created a space for populism within teaching and learning by reframing the pedagogical relationship as a marketplace transaction. An education system focused on learning as a means to an end not only obfuscates the longitudinal and transformative potential of the academy, but the transaction format erodes the relationships inherent to learning. A consumer-led approach to higher education can be understood to undermine cognitive authority by upending the traditional relationship of student and teacher. This populist reckoning, facilitated by a consumerist approach to the organization of education, has led to a greater willingness among students to challenge the content and delivery of their education (Morrow, 2005). The result is a loss in the cognitive authority of the educator, who is implicitly challenged when learners demand greater control over the curricula they are taught, or how they are taught it.

Academic capitalism has eroded trust in the communal construction of knowledge in a space of expertise and replaced it with privatized trust options: trust in the marketplace or trust in data. Trusting the marketplace is closely linked with neoliberal movements, and while we have discussed the effect of the student as a consumer from the instructional side of relationship, the administrative perspective of the student-academy relationship results in administrative decisions based on the assumed movements of a student's desire rather than longitudinal growth foundational to the historical purposes of education. This can be seen in universities' focus on programs aligned with the knowledge economy: hard sciences, technology and programs aligned with entrepreneurial thinking. This also ties into a trust in data, or specifically the aggregation of numerous information points to identify a solution to be replicated and perfected as 'best practice.' Trusting the data is akin to Morozov's theory of solutionism, and in so the criticisms of technological bias in research and development color the world we imagine when building the tools to solve the undefined problems (2015). Within 21st Century education discourses on austerity as well as expansion, the data-driven solutions focus on creating consistent experiences to provide scale to maximize economic growth. As Coffield & Edward (2013) argue, the attempt to endlessly improve practice through metrics that encourage the emulation of the success of others is often used as a route to impose reform from above.

It is important to identify that reform in and of itself is not necessarily negative. Technocratic reform by pedagogical experts may not be a bad thing. Institutional reform by business experts also may not be a bad thing. However, the extent to which decision makers in higher education are experts in teaching and learning is typically overestimated: Kenedi & Mountford-Zimdars (2018) found that educational expertise is rarely considered important in university leadership, with fewer than 20% of current pro-vice chancellors in UK higher education having a formal qualification in education. Too often "expert" reforms are used as a smoke screen to conceal some other agenda, such as increased profit or return to shareholders. As Ball (2018) has recently argued, this is particularly the case in the context of neoliberal reforms of educational systems, since all reform is in some sense "disruptive" and this brings with it the potential of new markets.

In this section we have argued that cognitive authority - the domain and pedagogical expertise of educators - has been systematically subordinated to other sources of performative or administrative authority. As the research around academic capitalism has evolved into a societal discussion about neoliberalism, the relationship of educators to institutions, students and administrators has shifted from shared operations based around the academy as a superstructure element of public good to piecemeal employ in response to desires of constituents rather than their needs or the needs of society.

5. Beyond the academy: cognitive authority in the "EdTech" public sphere

One key assumption from the liberal tradition is that educational institutions should prepare all interested individuals for political life and engagement in the public sphere. This has shaped modern educational practice but is not an agreed-upon expectation or ideal; for more than a century a dissenting view has existed questioning the value and effectiveness of education as public engagement and sought to reframe the operation in economic or workforce terms (e.g., Tunis, 1936). These criticisms are similar to 21st Century questions about the value of education (e.g., Caplan, 2017) in questioning the economic incentive of academic subsidy and full population accessibility.

An important distinction between 20th and 21st Century arguments against the academy exists in terms of democracy. The rise of education's 'golden age' in the mid 20th Century was politically shaped as a democratization of knowledge and opportunity for all Western people independent of economic status, race or gender (Thelin, 2004). More than two generations of educational research, development and practice is defined by this societal belief that education is a call to equity, justice and opportunity (Thelin, 2004).

Arguing against the value of education in the 21st Century in purely 21st Century economic terms obfuscates the history of education's growth. Books arguing against the value of higher education such as Bennett and Wilezol (2013) do not provide an historical review of education's progress and where democratization has failed to engage; rather, they utilize an ahistorical approach to educational practice and invoke stereotype and straw men to bring back an argument that was defeated more than 60 years ago. The public sphere as nurtured through education's golden age is omitted from recent historical debates about the purpose and value of college (Doherty, 2007).

It is this evolving public sphere, increasingly mediated by digital technologies, which is under attack from algorithm manipulation, propaganda cyber farms, and other questionable intelligence operations. The solution posed by these technological forces is to increase the reliance on technology in formerly public sector superstructures, most notably in education (Williamson, 2016). The irony here is rich; the companies responsible for the erosion are the ones promising an ever greater investment in their products is the only way to reverse the trend and stop the problem.

Morozov (2015) refers to this as 'technological solutionism' (2015) and no better contemporary example exists than that of social media giant Facebook. After Brexit and the election of Trump as president of the USA, a number of educational scholars and researchers used their public access to Facebook to question the algorithmic choices the platform had used in sharing content among its users (Vaidhyanathan, 2018). Evidence from the user side was overwhelming that Facebook's controls and filters had resulted in the limiting of content for users based on demographic information. In 2017 and 2018 research and undercover operations regarding the internal workings of Facebook showed not only did the makeup of their platform allow propagandistic techniques and psychological manipulation through use of its targeted advertising features during Brexit and the 2016 US Presidential election but to have aided propagandists in the targeting (Gibney, 2018). Faced with a significant media backlash, Facebook went on a charm offensive, including the commission of educational features regarding journalistic integrity and content literacies. The foundation of content literacies such as information and digital literacy is an ability to negotiate the transmitted information in order to understand its biases and verify its truth, so Facebook's role in obfuscating truth through its platform makes its place as heading a digital literacy rather questionable. Despite this, 15 community colleges across the United States recently partnered with Facebook in offering their internal curriculum around digital advertising and media literacy (Smith, 2018).

The microtracking technology used by Facebook (and later used by groups such as Cambridge Analytics in developing propaganda campaigns) is at the foundation of most contemporary technological solutions to disrupt education (Selwyn, 2016). Such operations make use of extensive tracking technologies to inform decisions about whether learning is taking place. These technologies track numerous aspects of a learner's interaction with a computer-mediated instructional program: the time spent on tasks, the gaps between keystrokes, typing style, word choice, cursor movement, eye movement and more. By collecting and analyzing this information, these companies profess their artificial intelligences can identify the moment when attention wanes or learning stops and therefore shape the learning of the students by offering remediation or intervention through different exercises or modules. The pedagogical approach of offerings like personalized learning is similar to that coming from historical educational practice (and seen in the digital in spaces such as MOOCs): the "sage on the stage" (King, 1993) - an expert who acts as the face of a learning programme and delivers content. However, removing the expert from the personalized learning network upends the cognitive authority in the learning space; the expert is not an academic with a verifiable CV/resume but a "disrupter" with effective and headstrong public relations.

The amelioration of cognitive authority in personalized learning has a ripple effect on research-backed, progressive educational practice. Consider assessment by peer review; a strategy fully endorsing a democratic approach to an educational environment. Open educational technologies like Wikipedia are increasingly used and trusted in classrooms and

learning spaces. In these examples the role of the expert is as a facilitator or as a member of a community, evident not in lecture performance but in addressing knowledge gaps through organizing approaches to peer review or editing Wikipedia entries. However, for the learner-as-user there is not necessarily a pragmatic difference between the biometric EdTech company using eye tracking to address attention and Wikipedia; they are consumers of content seeking a learning objective in a landscape void of human expertise and tangible cognitive authority.

Assessment by peers is an increasingly common feature of online learning programmes. This approach takes advantage of massive scaling to deliver a low-cost form of learning and assessment. This can lead to more fluid and open approaches to learning (Purser *et al.*, 2013) and some learners seem to be well-suited to this approach while others do not benefit from it (Meek *et al*., 2017). Crucially, assessment by peers replaces assessment by expert and this can lead to a situation in which no-one has the authority to accurately assess work or provide useful feedback to a learner. Suen (2014) provides some illustrative quotes from learners based on evaluations of this type of provision.

> I hated the peer assessments as in some cases, their anonymity gave the peers an excuse to say mean-spirited things.
>
> Peer-to-peer evaluation can not replace the teaching by an expert. The evaluations are not deep and rich enough.
>
> Asking tens of thousands people to discuss online about anything is stupid. Letting three random Internet trolls (also known as peers) to decide whether one passes with distinction or not is moron[ic].
>
> I really disliked the peer assessment. I worked very hard on my map and out of the reviews only one offered constructive criticism. The others I question if they even looked at my map rather than just the attached image of it. The comments that were made didn't even make sense.
>
> (Suen, 2014)

Poor peer assessment can obviously lead to undesirable educational outcomes. If the cognitive authority of educators in online learning is increasingly codified into instructional design and learning resources like MOOC we need to be aware that this removes a degree of reflexive communication and lessens the ability of the expert to influence educational outcomes.

At the same time, however, there is a real need for experts to create high quality educational resources like OER and MOOC which are openly available; form part of an intellectual commons; and reach out beyond the academy. If educators don't act to fill public space then others will. 2017 saw the emergence of a loose collective of "iconoclastic thinkers, academic renegades and media personalities" (Weiss, 2018) referring to themselves as the 'intellectual dark web'. Little unites these thinkers other than an anti-establishment attitude, a willingness to embrace controversy and scepticism about intellectual gatekeeping. Many of them individually have large numbers of followers on social media for whom they act as an unchecked authority espousing freedom of thought while stoking controversy.

Openness and publicity thus have an ambivalent relation to the cognitive authority in the technologically mediated public sphere. There is a need for experts to be present in digital public spaces but this also recasts the nature of pedagogical relationships. There is a need for a commons that can provide high quality learning resources and make them available widely available, but such resources inevitably dwell in an increasingly disparate, cacophonous and confusing public sphere (or spheres). In addition, such outreach is often pursued as part of the corporate efforts of higher education institutions to manage and promote their presence in public space. Consequently, it is often marketing and branding expertise that drives the intervention rather than genuine pedagogical engagement.

5. Rethinking academic practice for age of 'post-truth'

Our analysis has demonstrated the need for new concepts of cognitive authority and (crucially) *trust* appropriate to the technologically mediated public sphere. In this section we indicate a number of strategies to build trust, such as curriculum reform; considering the balance between the civic and market functions of higher education; building cultures that support justified cognitive authority; building stronger links to wider society through lifelong learning and outreach; and working with greater transparency and openness in operational processes. We are guided here by three key affordances: criticality, openness and effective use of technology.

Jester (2018) argues that curriculum is a key locus of the struggle to recognise the multidimensional and multivalent expression of power relations in higher education. Wilson (1991) draws attention to the role of cognitive authority in selecting resources for study and concludes that we need to exercise critical and sceptical faculties regularly, conveying as fully as possible the processes of selection to faculty and learners. To the extent that it is possible and reasonable, critical engagement with curriculum is one way to resolve the question of whose authority determines what is to be learned. Shor (1996:*ix*) describes this as "power-sharing, sometimes called negotiating the curriculum, shared authority or co-governance - what Seth Kreisberg (1992) called 'power with' instead of 'power over'".

A more critical engagement with curriculum does not apply only to educators. Pierce (1991) suggests that it is of particular importance that library and information professionals engage critically with resources used in instruction since they can act as a bulwark against complacency with respect to curriculum:

> Authority is legitimate only within the boundaries of the community (subject or otherwise) in which it is based… Even when we are able to locate authoritative sources with answers to questions, they tend to be less certain than they look, and greater authority is no guarantee of quality. Authority tells us only that the creators of the source have qualifications and institutional affiliations that match the expectations of a given disciplinary community, not that the source is infallible, or even that its disciplinary community is the best to pursue the information sought (Pierce, 1991:31).

As interdisciplinarity becomes ever more common within technology-enhanced learning (Conole *et al*., 2010; Scanlon & Taylor, 2016) there will be an increasing demand for brokers who can effectively negotiate the claims to cognitive authority that arise within difference disciplines. The skills required to effectively assess the validity of claims from different disciplines, or to engage critically with expert authorities are *epistemological* skills. More

broadly, the need to equip learners with improved epistemological and critical tools, so that they can independently assess the validity of a particular truth claim and the evidence associated with it, can be framed in terms of prioritising epistemic approaches to teaching and learning. Orienting in this way involves explicitly questioning assumptions; providing the argumentative tools to analyse and evaluate claims, theories, evidence and data; emphasizing the need for consistency of beliefs; encouraging reflection on one's own assumptions; and promoting epistemic virtues like criticality, curiosity, open-mindedness, honesty and circumspection. These are not new literacies - arguably they are very old ones first identified by the Ancient Greeks - but they are sometimes de-prioritised in favour of other elements, such as core content delivery.

One strategy that could be used to promote epistemic skills is to provide supplementary education and resources on open licences, or to offer recognition of prior learning to students who can demonstrate that they have completed some form of epistemic education. As Almeida (2017) notes, open educational resources and practices are not a panacea for inequity and other issues in education. However, it has also been argued that the open element can provide support for critical forms of pedagogy because of its greater reflexiveness and its potential for inclusivity. The democratising force of OER can be a route to empowering educators when it affords them greater control over the resources they use and the way that they teach (Farrow, 2017). Offering professional recognition for expertise in navigating the abundance of online resources is one way that institutions can support these activities.

Perspectives that emphasize the importance of epistemology can be adopted, but also require at least a provisional defence of the notion of truth and its role in education. As Angemuller (2018) notes, there is a need to consistently articulate a more nuanced account of the status of truth within Constructivist approaches, and to moderate the extent to which a critique of truth can be manipulated to serve the ends of populists who reject scientific claims that are unaligned to their political agenda. 'Post-truth' is a signifier not for a world where truth claims can no longer be made (or no longer matter) but a world where disregard for truth has few negative consequences. The problems associated with 'post-truth' are much bigger than can be solved by rethinking academic practice. A properly functioning deliberative liberal democracy requires not just intellectuals in public space, but a public that is willing to engage with them and debate ideas rationally.

The philosopher and social theorist Jürgen Habermas has defended the Enlightenment notion of the public sphere since the 1960s. He recently suggested that the infrastructure required to support a flourishing public sphere has been degraded by a diminishing audience for complex ideas and expresses scepticism about the possibility of rebuilding a functioning public sphere as long as culture is made subordinate to economics (Hermoso, 2018). Ameliorating this requires a fundamental rethink about the purpose and value of academic institutions and the way that they relate to the public they serve. For instance, greater attentiveness could be paid to traditional educational goals like citizenship rather than thinking of education purely in terms of preparation for the jobs marketplace.

The role of the academy in supporting a range of social actions is often reduced to an attempt to demonstrate the economic 'impact' of research on wider society. As Manners (2018) notes, this is typically much easier to frame than engaging with more abstract questions about the purpose of education:

> We need to clarify the outcomes we are striving for – fairness, social justice, civility and tolerance, health and wellbeing, lifelong learning perhaps – and why we believe human and environmental flourishing matters. (Manners, 2018)

Forging stronger links to many different elements of society through 'engaged' practice can also offer a route to epistemic justice (Holliman, 2017). Reframing the concept of the public intellectual so that it is aligned to the coordinates of a new, digital public sphere necessitates a rethinking of intellectual communication and scholarly activity along the lines of increased transparency and openness.

6. Conclusion

The postmodern vision of education as imagined by Lyotard (1979) consisted of learners engaging with knowledge-filled computer banks to consume information; students would identify a need and find the proper data to service that request. The idea was that learners would engage the agreed-upon knowledge from computer banks and apply the information in terms of context and localized truths. The computer banks would be in a constant state of tending and growth, data amended and information reshaped as knowledge grew. In this vision of the future the role of instructor was reducible to that of operator of the computer systems.

Nearly 40 years later, Lyotard's postmodern condition is somewhat accurate from a dominant paradigm perspective on education: computers allow learners to engage with content as they see necessary, and the scalability of such operations has fueled the recent EdTech phenomenon (Veletsianos & Moe, 2017). Instructors are often deployed in operational and administrative tasks, their expertise muted in lieu of linking students to the content and ensuring the machines record the interactions. However, the agreed-upon knowledge integral to Lyotard's concept of postmodernism has been upended; small and localized truths are under assault from "post-truth". The authority present across multiple levels of historical academia has been replaced with brand recognition, pushing the pursuit of education towards economic goals and obfuscating the relationship of learning with transformation and behavior change.

In this paper we have proposed using the concept of cognitive authority as a way of understanding both the changing nature of power relations in the academy; and the evolving role of educators in supporting learning. It has not been our intention here to attempt to unproblematise the notion of truth, which should be understood as a product of human activity and always engaged with critically. Rather, our aim has been to analyze changing notions of academic authority both within and beyond the academy to understand some of the implications for the practice of teaching, learning and administration.

Cognitive authority is a critical component of teaching and learning. The practice of teaching and learning requires an expert presence, and while the specifics of that presence remain a space of debate, at the very least a learning environment must include individuals with superior knowledge in order to produce learning materials and/or deliver instruction. Knowledge construction, facilitation of problem-based learning opportunities and discipline mastery are practices which shift the focus of learning from delivered instruction to wisdom development. Despite the difference in appearance of these methodologies, their application

is in deference to the democratic values of education in the public sphere, understanding content and context together in shared and unique environments.

Because of the overt politicism of 'post-truth,' support of these methodologies must acknowledge the political elements of constructive learning as foundational to the practice of education as well as encourage this manifestation. Examples of this resistance abound. Distributed networks throughout social media have used hashtags, memes and other virtual phenomena to both speak out against historical oppressive forces but also to celebrate expertise and accomplishment. In the summer of 2018 the #immodestwoman hashtag was used on social media by female experts who changed their handles to reflect their professional titles, reclaiming public space and setting out a claim to cognitive authority and domain expertise. This kind of "performativity" (Butler, 1993) can be contrasted with the passivity of "knowing" and merely being an authority. By enacting the authority of educators and experts across teaching, learning, administration and public space a coordinated attempt can be made to reclaim the centrality of the concept of truth.

References

Almeida, N. (2017). Open Educational Resources and Rhetorical Paradox in the Neoliberal Univers(ity). *Journal of Critical Library and Information Studies* 1 https://academicworks.cuny.edu/ny_pubs/142/

Angermuller, J. (2018). Truth after post-truth: for a Strong Programme in Discourse Studies. *Palgrave Communications* 4 (30). doi:10.1057/s41599-018-0080-1

Barad, K. (2007). *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Duke University Press.

Ball, S. (1995). "Intellectuals or Technicians: the urgent role of theory in educational studies". In Hammersley, M. (ed.) (2011) *Educational Research and Evidence Based Practice.* London: The Open University / SAGE Publications pp. 106–20.

Ball, S. (2011). A new research agenda for educational leadership and policy. *Management in Education* 25(2). pp. 50-52.

Ball, S. (2018). Commercialising education: profiting from reform! *Journal of Education Policy* 33(5). pp.587-589. https://doi.org/10.1080/02680939.2018.1467599

Baudrillard J. (1981). *Simulacra and Simulation*. Michigan: University of Michigan Press

Bennett, W. & Wilezol, D. (2013). *Is College Worth It?* Thomas Nelson: New York, NY

Butler, J. (1993). *Bodies That Matter.* London: Routledge.

Caplan, B. (2017). *The Case against Education: Why the Education System Is a Waste of Time and Money.* Princeton University Press.

Coffield, F. & Edward, S. (2013). Rolling out 'good', 'best' and 'excellent' practice. What next? Perfect practice? *British Educational Research Journal,* 35: 371-390. doi:10.1080/01411920802044396

Conole, G., Scanlon, E., Mundin, P. and Farrow, R. (2010). *Interdisciplinary Research: Findings from the TEL Research Programme*. Teaching and Learning Research Programme (TLRP) / The Economic and Social Research Council (ESRC) http://www.tlrp.org/docs/TELInterdisciplinarity.pdf

Derrida, J. (1976). *Of Grammatology*. John Hopkins University Press. Baltimore, MA

Eagleton (1996). *The Illusions of Postmodernism*. 2nd edition. John Wiley & Sons

De Sousa Santos, B. (2005). The university in the 21st Century: Toward a democratic and emancipatory university reform. In R. Rhoads & C.A. Torres (Eds.) *The University, State, and Market: The Political Economy of Globalization in the Americas*. Stanford University Press: Palo Alto, CA.

Doherty, R. (2007). Education, neoliberalism and the consumer citizen: After the golden age of egalitarian reform. *Critical Studies in Education, 48* (2), 269-288. https://doi.org/10.1080/17508480701494275

Fairclough, N. (1993). Critical Discourse Analysis and the Marketization of Public Discourse: The Universities. *Discourse and Society* 4(2). pp.133-168. https://doi.org/10.1177/0957926593004002002

Farrow, R. (2017). Open education and critical pedagogy. *Learning, Media and Technology*, 42:2. pp.130-146. DOI: 10.1080/17439884.2016.1113991

Ferry, L. and Renaut, A. (1988). *La pensée 68. Essai sur l'anti-humanisme contemporain*. Collection Folio essais (n° 101), Gallimard.

Flood, A. (2016). 'Post-truth' named word of the year by Oxford Dictionaries. *The Guardian.* 15th November. https://www.theguardian.com/books/2016/nov/15/post-truth-named-word-of-the-year-by-oxford-dictionaries

Flyverbom and Reinecke (2017). The spectacle and organization studies. *Organisation Studies* 38(11). 1625–1643

Foucault, M. (1981). *The History of Sexuality* (vol. 1). Harmondsworth: Penguin.

Fricker, M. (2007). *Epistemic Injustice: Power and the Ethics of Knowing*. Oxford: Oxford University Press.

Gibney, E. (2018). The scant science behind Cambridge Analytica's controversial marketing techniques. *Nature*. 29th March. doi: 10.1038/d41586-018-03880-4

Habermas, J. (1993). *The Philosophical Discourse of Modernity - Twelve Lectures.* MIT Press.

Hermoso, B. (2018). Jürgen Habermas: "For God's Sake, Spare Us Governing Philosophers!". *El País* (25th May). https://elpais.com/elpais/2018/05/07/inenglish/1525683618_145760.html

Higgins, K (2016). Post-truth: a guide for the perplexed. *Nature* 540(9) (December). doi:10.1038/540009a

Holliman, R. (2017). Supporting excellence in engaged research. *Journal of Science Communication*. 16(5) pp. 1–10.

Hunt, D. (1999). *O.J. Simpson facts and fictions: News rituals in the construction of reality.* Cambridge University Press.

Jester, N. (2018). Representation within higher education curricula: contextualising and advocating for feminist digital activism. *Teaching in Higher Education* 23(5). pp.606-618.

King, A. (1993). From Sage on the Stage to Guide on the Side. *College Teaching* 41 (1) (Winter). pp. 30-35.

Kenedi, G & Mountford-Zimdars, A. (2018). Does educational expertise matter for PVCs education? A UK study of PVCs' educational background and skills. *Journal of Higher Education Policy and Management* 40 (3). pp.193-207. https://doi.org/10.1080/1360080X.2018.1462440

Keyes, R. (2004). *The Post-Truth Era: Dishonesty and Deception in Contemporary Life*. St. Martin's Press. New York, USA.

Kriesberg, S. (1992). *Transforming Power: Domination, Empowerment, and Education*. State University of New York Press.

Manners, P. (2018). Where have all the universities gone? The quest for civic engagement. *Wonk HE*. https://wonkhe.com/blogs/where-have-all-the-universities-gone/

Moe, R. (2017). All I know is what's on the Internet. *Real Life Magazine*. http://reallifemag.com/all-i-know-is-whats-on-the-internet/

McComiskey, Bruce (1992). Disassembling Plato's Critique of Rhetoric in the Gorgias. *Rhetoric Review* 11(1). 79-90.

Meek, S. E. M., Blakemore, L. & Marks, L. (2017). Is peer review an appropriate form of assessment in a MOOC? Student participation and performance in formative peer review. *Assessment & Evaluation in Higher Education,* 42:6, 1000-1013, DOI: 10.1080/02602938.2016.1221052

Morozov, E. (2017). Moral panic over fake news hides the real enemy - the digital giants. *The Guardian*. 7th January. https://www.theguardian.com/commentisfree/2017/jan/08/blaming-fake-news-not-the-answer-democracy-crisis

Murphy, M. & Costa, C. (2018). Digital scholarship, higher education and the future of the public intellectual. *Futures* (pre-publication). https://doi.org/10.1016/j.futures.2018.04.011

Peters, M. (2017). Education in a post-truth world. *Educational Philosophy and Theory*, 49 (6). 563-566. https://doi.org/10.1080/00131857.2016.1264114

Pierce, S. J. (1991). Subject areas, disciplines and the concept of authority. *Library and Information Science Research*, 13. pp. 21-35.

Plato. (1952). *Gorgias*. Translated by W. C. Helmbond. Bobbs-Merrill, Indianapolis & New York.

Plato (1937). *The Republic*. Translated by Shorey, P. Harvard University Press. Cambridge, MA & London.

Purser, E. Rose., Towndrow, A. & Aranguiz, A. (2013). Realising the potential of peer-to-peer learning: taming a MOOC with social media. *e-Learning Papers*, 33 (May). 1-5.

Rieh, S. Y. (2005). "Cognitive authority". In K. E. Fisher, S. Erdelez, & E. F. McKechnie (eds.) *Theories of information behavior: A researchers' guide*. Medford, NJ: Information Today.

Scanlon, E. & Taylor, J. (2016). Is technology enhanced learning an interdisciplinary Activity? In Cranmer S., Dohn, N.B., de Laat, M., Ryberg, T. & Sime, J.A. (eds.) *Proceedings of the 10th International Conference on Networked Learning 2016*. http://oro.open.ac.uk/46300/3/__userdata_documents4_ctb44_Desktop_scanlontaylorORO.pdf

Seal, A. (2018). How the university became neoliberal. *Chronicle of Higher Education.* 8th June. https://www.chronicle.com/article/How-the-University-Became/243622/

Sharples, R. W. (1994). Plato on Democracy and Expertise. *Greece & Rome* Vol. 41, No. 1. pp. 49-56

Shor, I. (1996). *When Students Have Power: Negotiating Authority in a Critical Pedagogy*. University of Chicago Press.

Slaughter, S. & Rhoades, G. (2004). *Academic Capitalism and the New Economy: Markets, State and Higher Education.* Baltimore, MD: The Johns Hopkins University Press.

Smyth, J. (2017). *The Toxic University: Zombie Leadership, Academic Rock Stars and Neoliberal Ideology*. Palgrave Macmillan.

Suen, H. K. (2014). Peer Assessment for Massive Open Online Courses (MOOCs). *The International Review of Research in Open and Distributed Learning* 15(3). http://www.irrodl.org/index.php/irrodl/article/view/1680/2904

Thelin, J. (2004). Gilt by association: Higher education's 'golden age.' *A History of American Higher Education.* Johns Hopkins, London.

Tunis, J. (1936). *Was college worth while?* Harvard University Press.

Watters, A (2017). Education Technology and 'Fake News'. *Hack Education*. 2nd December. http://hackeducation.com/2017/12/02/top-ed-tech-trends-fake-news

Weiss, B. (2018). Meet the Renegades of the Intellectual Dark Web. New York Times (May 8th). https://www.nytimes.com/2018/05/08/opinion/intellectual-dark-web.html

Williamson, B. (2016). Silicon startup schools: technocracy, algorithmic imaginaries and venture philanthropy in corporate education reform. *Critical Studies in Education* 59 (2). pp. 218-236. https://doi.org/10.1080/17508487.2016.1186710

Wilson, P. (1983). *Second-Hand Knowledge. An Inquiry into Cognitive Authority*. Westport, Connecticut: Greenwood.

Wilson, P. (1991). Bibliographic Instruction and Cognitive Authority. *Library Trends.* Vol. 39, No. 3, Winter 1991, pp. 259-70